

Application No.: 10/600,948
Amendment Dated: November 7, 2006
Reply to Office Action Dated: October 31, 2006

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1.-20. (cancelled)

21. (new) A transgenic plant comprising in its genome a transgene encoding a Flowering Locus C2 (FLC2) gene, wherein expression of the transgene causes a delay in the onset of flowering in the transgenic plant compared to non-transgenic plants of the same species.

22. (new) A seed of the transgenic plant of claim 21.

23. (new) A seed for a transgenic plant, the seed comprising in its genome a transgene comprising a plant expressible promoter and an antisense coding region complementary to a protein coding region for a plant Flowering Locus C2 (FLC2) protein, the plant FLC2 protein (i) having a MADS box domain, (ii) being at least 50% identical in amino acid sequence to the FLC2 protein, SEQ ID NO:4, outside of the region of the MADS box domain, and (iii) effective when expressed in transgenic plants to cause a delay in the onset of flowering in the transgenic plant as compared to a non-transgenic plant of the same genetic background.

24. (new) A plant grown from the seed of claim 23.

25. (new) An isolated nucleotide sequence comprising the coding sequence for the FLC2 gene, wherein the sequence is defined by SEQ ID NO:3.

26. (new) An isolated DNA sequence comprising a DNA sequence encoding the FLC2 protein, wherein the sequence is defined by SEQ ID NO:4.

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27. (new) A genetic construction comprising a plant expressible promoter operably connected to a protein coding sequence for a protein of the Flowering Locus C2 (FLC2) gene, the plant FLC2 protein (i) having a MADS box domain, (ii) being at least 50% identical in amino acid sequence to the FLC2 (SEQ ID NO:4) protein, and (iii) effective when expressed in transgenic plants to cause a delay in the onset of flowering in the transgenic plant as compared to a non-transgenic plant of the same genetic background.

28. (new) A plant comprising in its genome the genetic construction of claim 27.

29. (new) A transgenic plant comprising a transgene encoding a member of the plant Flowering Locus C2 FLC2 protein, the plant FLC2 protein (i) having a MADS box domain, (ii) being at least 50% identical in amino acid sequence to the FLC2 (SEQ ID NO:4) protein, and (iii) effective when expressed in transgenic plants to cause a delay in the onset of flowering in the transgenic plant as compared to a non-transgenic plant of the same genetic background.

30. (new) A method of producing a transgenic plant with altered flowering characteristics comprising: contacting a plant cell with a transgene comprising a plant expressible promoter and a protein coding sequence encoding a plant Flowering Locus C2 (FLC2) gene protein, the plant FLC2 protein (i) having a MADS box domain, (ii) being at least 50% identical in amino acid sequence to the FLC2 (SEQ ID NO:4) protein, and (iii) effective when expressed in transgenic plants to cause a delay in the onset of flowering in the transgenic plant as compared to a non-transgenic plant of the same genetic background; identifying a plant cell carrying the inserted transgene; regenerating a transgenic plant from the plant cell, wherein the transgenic plant exhibits at least about 10% more leaves than a non-transgenic plant of the same genetic background without the transgene, wherein the number of leaves is determined when the transgenic plant and the non-transgenic plant are being grown under the same conditions.